The NORTH QUEENSLAND NATURALIST

CAIRNS

Journal of

NORTH QUEENSLAND NATURALISTS CLUB Box 991, P.O. CAIRNS, Q. 4870. Australia. Phone 53 1183

Founder President: The late Dr. 111 GO FLECKER International Library No: AT ISSN 0078-1630

OBJECTS: The furtherance of the study of the various branches of Natural History and the preservation of our heritage of Indigenous fauna and flora.

MEETINGS: Second Tuesday of each month at Cairns Education Centre, Cnr. Morehead and Lazarus 8ts., Bungalow, 8.00 p.m.

FIELDS DAYS: Sunday before meeting. Notice of place and time given in "Cairns Post".

Hon. Editor

Club Officers

President Mr. Ted Bill Hon. Secretary Mrs. Edna Barker Hon. Treasurer Mrs. Dawn Magary

Mr. Les Francis

Cassowary Watch is a project of the Cassowary & Hillslopes Action Group (CHAG) which was formed by a small group of people concerned at the development of the hillslopes around Cairns and, in particular, the effect on the cassowary habitat. The idea

of Cassowary Watch is to involve as many people as possible who live in the vicinity of the Whitfield Range to monitor sightings of cassowaries so we can obtain some idea of population numbers. This information, we hope, will be important in helping to save the remaining hillslopes for the cassowaries. CHAG are also circulating a petition to the Queensland Government asking them to act on the matter.

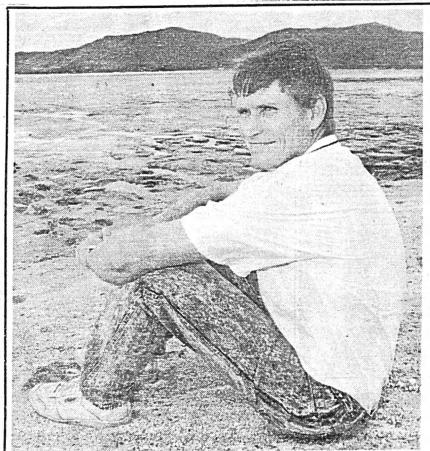
We would like interested people to keep a record of any cassowary sightings in their gardens or on the Whitfield Range (for instance the Blue Arrow Walk).

The following information would be useful:-

- * Date and time seen.
- * If seen feeding, what on.
- * Distinguishing marks ie: shape of casque or wattle, height in relation to building or tree. (A photograph would be useful).
- * Behaviour ie: shy, aggressive or inquisitive.
- * If chicks present, size and number.

We also aim, with the help of CSIRO and local nurseries, to be able to give information on suitable trees that can be grown as cassowary food plants in gardens and used in revegetation schemes.

For further information please contact:-Gael Campbell Ph: (070) 55 2280 (h) or Lindsay Fisher Ph: (070) 58 1164 (h)



Stratford award winner

THE 1990 Mulgrave Shire Environment Award winner, Mr Rob Jago, of Stratford, looks over the Cairns mudflats — an area of concern to environmentalists.

Mr Jago has grown native plants for the Smithfield State High School's environment plot. After Cyclone Winifred, he gave Babinda State High School rainforest plants suited to the area to replace destroyed trees.

In the ABC-TV film, "World at Your Feet", Mr Jago was a guide through the rainforested areas of the Russell River and Mt Bartle Frere.

He has also marked walking trails through local rainforest areas.

Notes on the Vegetation of the Mount Lewis Area of North Queensland

Robert Jago

Mt. Lewis is only one of many interesting and outstanding areas of rainforest in north east Queensland. What makes this area special is its accessibility to the amateur naturalist. The Mt. Lewis Road branches off the Rex Range Highway between Julatten and Mossman and is accessible in good weather to conventional drive vehicles for some 30 Km.

The first kilometre or so passes through cleared farming land, crosses Bushy Creek, up through an area of regrowth into a mesophyll vine forest and in and out through areas of cleared forest with *Racosperma aulacocarpum* (black wattle) emergents, into a simple microphylla vine-fern forest. The areas of closed forest represent different stages of rainforest regeneration brought about by clearing, logging and fire along the western margins. In several places it is only a few minutes walk to the boundary of the rainforest type vegetation and a woodland dominated by *Eucalyptus intermedia* and *Syncarpia glomulifera*.

The Mt. Lewis area along with all other areas of high altitude rainforest of north Queensland is of particular interest. It is generally believed that during periods of decreased precipitation rainforest type vegetation retreated to refuge areas such as deep gorges and high mountain peaks. During these periods of low precipitation these islands of rainforest were isolated from one another for considerable periods of time; this makes these relict areas particularly interesting from an evolutionary point of view as these high mountain peaks are often characterized by either rare and/or endemic plant species. It is at times difficult to decide whether this degree of endemism is of any real significance. It may only be the result of insufficient collecting in such areas, as a species previously thought to be restricted to a certain area may subsequently be found to occur somewhere else. At the same time previously unknown species continue to be described, some of these being known only from a very small population in the type locality.

Some species with unusual or limited distribution that occur in this area are the Bunya Pine Araucaria bidwillii; Aceratium ferrugineum in the Eleaocarpaceae; the apparently undescribed species of Austromuellera, Helicia grayi, H. lewisense, Sphalminum racemosa and Stenocarpus davallioides in the Proteaceae: Endiandra phaeocarpa in the Lauraceae; the apparently undescribed species of Dryadodaphne in the Atherospermaceae; Prumnopitys ladei in the Podocarpaceae; Lenbrassia australiana var. australiana in the Gesneriaceae; Solanum dimorphispinum in the Solanaceae; the apparently undescribed Linospadix sp. in the Arecaceae; Romnalda grallata in the Xanthorrhoeaceae; and Bulbophyllum lewisense in the Orchidaceae.

I sincerly hope the members of the Naturalists Club and other visitors find this list of some use on their forthcoming field trips during the latter half of this year.

The following species are listed for Mt. Lewis in Rare and Threatened Plants of Queensland.

Polyaulax sp. in the Annoraceae Xylosma sp. in the Flacourtiaceae Symplocos sp. in the Symplocaceae Planchonella sp. in the Sapotaceae Austromyrtus sp. (B. Gray 2844) and Pilidiostigma sp. (G. P. Guymer 2024) in the Myrtaceae

A Preliminary Check List of the Plants of the Mt. Lewis Area

The original check list on which the following list is based was compiled from notes and observations made on two one day trips to the area in late 1985. This list was prepared for proposed post conference trips for delegates attending the State

Conference of the Society for Growing Australian Plants held in Cairns in June 1986. The list was prepared on a very scientific basis known as "hit & miss". Stops at varying intervals were made along the Mt. Lewis Road. Species known to the author were recorded by using a small hand held cassette tape recorder. Three large plastic garbage bags of unfertile specimens were collected mainly of tree species, and a few notes taken on bark characteristics etc. of these not readily identifiable species. These specimens were then keyed out using A revised card key to rainforest trees of north Queensland (Hyland). Almost all of these specimens were keyed to my satisfaction but I found 20 or so impossible to key out using this method. Several of these were probably members of the Lauraceae, a very difficult family to identify in the field to species level. The impossible to identify specimens were discarded. It was originally intended to make follow up trips to the area to further refine the list but the start of the wet season, Cyclone Winifred, the organizing of the S.G.A.P. State Conference and moving house all contributed to no further field work being undertaken.

The list was first published in 1986 in the S.G.A.P. Conference papers and then forgotten until Les Francis, the Naturalists Club Journal editor, sought permission to republish the list in this journal. This revised list contains common names and recent name changes of which I am aware. Species such as *Cryptocarya bellendenkerana*, *Endiandra jonesii*, *E. Phaedcarpa* and *Litsea connorsii* have been added to the list from information obtained from <u>A Revision of Lauraceae in Australia (excluding Cassytha)</u> by B.P.M. Hyland. The names *Sarcopteryx montana* and *Sarcotoechima villosa* have been taken from Sally Renold's revision of Sapindaceae, *Lycopodium lockyeri* from <u>Austrobaileya</u> Vol. 2 Nº. 2 1985, and *Bulbophyllum lewisense* from <u>Austrobaileya</u> Vol. 3 Nº. 1 1989. The only species listed referable to an herbarium specimen collected by the author is *Elattostachys microcarpa* a member of the Sapindaceae.

Even the most casual study of the check list reveals deficiencies and I am left wondering why many very common rainforest species are not included. This is probably caused by the hit and miss method used in compiling the list. The list of Lichens is taken from Austrobaileya Vol. $2\ N^{\circ}$. 5.

Use the following as a rough guide.

Compiled by Rob Jago.

R.F.K. refers to the <u>A revised card key to rainforest trees of north Queensland</u> by B.P.M. Hyland, published by CSIRO 1982.

Trees

Abrophyllum ornans		Athertonia diversifolia	Atherton silky oak
Aceratium ferrugineum		Austrobuxus nitidus	
Acmena divaricata	Cassowary satinash	Austromyrtus metrosideros	
Acmena hemilampra	Mountain satinash	Austromyrtus minutiflora	
ssp. orphila		Austromullera sp. (Mt. Lewis)	Mueller's silky oak
Acmena resa	Red eungella satinash	Balanops australiana	Pimple bark
Acronychia acidula	Lemon aspen	Bankisia integrifolia	White oak
Acronychia chooreechillum		Beilschmiedia bancroftii	Yellow walnut
Aglaia ferruginea		Beilschmiedia collina	Blush walnut
Aglaia sapindina		Bleasdalea bleasdalei	Blush silky oak
Aleurites moluccana	Candle nut	Brackenridgea nitida	Brown ochna
Alphitonia petriei	Pink ash, Sarsaparilla	ssp. australiana	
Alphitonia whitei	Nth. red ash	Buckinghamia celsissima	Spotted silky oak
Alstonia meuellerana	Hard milkwood	Caldcluvia australiensis	Rose alder
Alstonia scholaris	Milky pine	Canthium coprosmoides	Marko
Amoora ferruginea		Cardwellia sublimis	Bull oak
Apodytes brachystylis	Buff alder	Carnarvonia araliifolia	Caledonian oak
Araucaria bidwillii	Bunya pine	Carnarvonia sp.	Red caledonian oak
Agyodendron sp.=(R.F.K.575)	Mist tulip oak	Casearia sp.?	
Archidendron sp.	Salmon bean	Castnosporaa alphandii	Brown tamarind
Archidendron vaillantii	Salmon bean	Ceratopetalum virchowii	Pink sycamore
Arytera divaricata	Rose tamarind	Ghionanthus axillaris	Pimply olive
Arytera lautererana	Corduroy tamarind	Chionanthus ramiflorus	Hative olive 3

			1
Cinnamomum laubattii	Pepperwood .	Macaranga involucrata	Brown macaranga
Citronalla smythii	Nth. silky beech	var. <i>mallotoides</i>	
Corynocarpus cribbianus	Cribwood	Mischocarpus exangulatus	
Cryptocarya bellendenkerana		Mischocarpus pyriformis	Pear-fruited tamarind
Cryptocarya mackinnoniana	Rusty laurel	Musgravea heterophylla	Briar silky oak
Cryptocarya densiflora	Cinnamon laurel	Musgravea stenostachya	Crater silky oak
Cryptocarya grandis	Cinnamon laurel	Myristica insipida	Nutmeg
	Cilifation faurei	Neolitsea dealdata	Grey bollywood
Cryptocarya leucopylla	P-77: 71d	Opisthiolepsis heterophylla	Blush silky oak
Cryptocarya oblata	Bolly silkwood	Orites excelsa	Mtn. silky oak
Daphnandra repandula	Nth. sassafras	Ostrearia australiana	Hard pink alder
Darlingia darlingiana	Brown silky oak	Pittosporum rubiginosum	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Davidsonia pruriens	Davidson's plum	ssp. wingii	
Delarbrea michieana		Placospermum coriaceum	Rose silky oak
Denhamia viridissima		Planchonella euphlebia	Hickory boxwood
Doryphora aromatica	Nth. sassafras	Planchonella macrocarpa	Big leaf boxwood
Dryadodaphne sp. = (R.F.K.50	1)Grey sassafras	Podocarpus neriifolius	•
Elaeocarpus angustifolius	Silver quandong		Brown pine '
Elaeocarpus arnhemicus	Bony quandong	Podocarpus smithii	Smith's brown pine
Elaeocarpus eumundi	Eumundi quandong	Polyscias australiana	Ivory basswood
Elasocarpus ferruginiflorus	Red leaf quandong	Polyscias ėlegans	Celerywood
Elaeocarpus sp. aff. E. kirt	onii	Polyscias mollis	
Elaeocarpus largiflorens	Tropical quandong	Polyscias murrayi	White basswood
Elaeocarpus = (R.F.K.314)		Polyscias purpureus	Purple basswood
Elattostachys microcarpa		Polyscia wilmottii	Wilmot's basswood
Endiandra cowleyana	Nth. rose walnut	Prumnopitys ladei	Fern-leaf brown pine
Endiandra discolor	Rose walnut	(Podocarpus ladei)	
Endiandra hypotephra	Nth. rose walnut	Pullea stutzeri	Hard alder
Endiandra jonesii		Racosperma aulacocarpum	Black wattle
Endiadra montana	Brown walnut	(Acacia)	
Endiadra phaeocarpa	Brown warner	Racosperma melanoxylon	Blackwood wattle
Endiandra pubens	Hoiny walnut	(Acacia)	
	Hairy walnut	Rapanea achradifolia	Muttonwood
Endiandra sankeyana	Sankey's walnut	Rapanea sp.	
Euodia sp.=(R.F.K.305)		aff. R. subsessilis	
Euonymus globularis		Rhodamnia blairiana	Iron malletwood
Fagraea gracilipes		Rhodomyrtus sericea	
Ficus congesta	Red leaf fig	Rhodomyrtus trineura	Ironwood
Ficus crassipes	Fig	Rockinghamia angustifolia	Comkamala
Ficus frasəri	Sandpaper fig	Sarcotoechima villosia	COMPANIA PA
flindersia bourjotiana	Qld. silver ash	Sarcopteryx montana	
Flindersia brayleyana	Qld. maple		Umberlin terr
Galbulimima belgraveana	Pigonberry ash	Schefflera actinophylla	Umbrella tree
Gracinia gibbsiae	Mangosteen	Siphonodon membranaceus	Ivory wood
Gardenia ovularis	Gardenia	Sloanea australis	Blush alder
Geissois biagiana	Nth. brush mahogany	Sloanea langii	White carbeen
Glochidion harveyanum	Button wood	Solanum mauritianum	Wild tobacco
Glochidion pungens	Button wood	(not native)	
Grevillea baileyana	Findlay's silky oak	Sphalminum racemosa	Buff silky oak
Goniothalamus australis		Stenacarpus davallioides	Fern leaf stenacarpus
Guica acutifolia		Symplocos cochinchinensis	White hazelwood
Guioa lasioneura		ssp. thwaitesii var. gittons	Si i
Halfordia scleroxyla	Jitta	Symplocos cochinchinensis	White hazelwood
Helicia australasica	0.000	ssp. thwaitesii var. =(R.F.	(.444)
Helicia grayii		Symplocos sp.=(R.F.K.495)	Hazelwood
Helicia lewisense		Synima cordieri	Synima
		Synoum muelleri	Nth Scentless rose wood
Helicia recurva	1144	Syzygium alatoramulum	1
Homalanthus novo-guineensis	Nth. bleeding heart	Syzygium canicortex	Yellow satinash
Hypsophila dielsiana		Syzygium cormiflorum	Bumpy satinash
Jagera discolor		Syzygium corynanthum	Killarney satinash
Litsea bindonina	Big leaf bollywood	Syzygium endophloium	Rolypoly satinash
Litsea connorsii	Bollywood	Syzygium erythrodoxum	sacmasii
Lomatia fraxinifolia	Lomatia silky oak	Syzygium gustavioides	Grey satinash
Macadamia heyana		-/-/3 340047101463	of empliment

Syzygium johnsonii Syzygium kuranda Syzygium luehmannii Syzygium papyraceum Syzygium trachyphloium Syzygium wesa Syzygium wilsonii ssp. cryptophlebium Timomius singularis Toechima erythrocarpum Wilkiea angustifolia

Xanthophyllum octandrum

Rose satinash Kuranda satinash Cherry satinash Paperbark satinash Rough-bark satinash White eungella satinash Plum satinash

Pink tamarind

Macintyre's boxwood

Shrubs

When considering shrubs all of the above tree species may occur at shrub size. This should be taken into consideration. Some species listed as shrubs may at times attain small tree size.

Alyxia ilicifolia Alixia oreophila Alixia ruscifolia Ardisia brevipedata Ardisia pachyrrhachis Cordyline cannifolia Gardenia merikin Dendrocnide morides Ervatamia orientalis Harpullia rhyticarpa Hadraianthera porphyropetala

Lasianthus strigosus

Stinging tree

Lenbrassia australiana var. australiana Leucopodium leptospermoides Mackinlaya coonfusa Melastoma polyanthum Millettia pilipes Pavettia australiensis Pandanus monticola Rhododendron lochae Solanum dimorphisinum Tapeinosperma pseudojambosa Triunia montana Wendlandica inclusa Wilkiea huegeliana Ziera sp.

Mountain spice bush

Palms

Archontophoenix sp. aff. A. alexandraea Calamus so. Laccospadix australasicus Linospadix microcarya Linospadix sp. (Mt. Lewis) Oraniopsis appendiculata

Alexandria palm

Lawyer cane Mtn. mist palm Walking stick palm Walking stick palm Rainforest coco nut palm

Vines and Climbing Plants Agapetes meiniana Aristolochia sp. Austrobaileya scandens Austrosteenisia blackii

(Kunstleria) Cissus penninervis? Blood vine

Native grape

Freycinetia excelsa Hoya nicholsoniae Melodinus australis Morinda sp. Piper interruptum Piper novea-hollandiae

Pothos longipes Quintinia fawknerii Rhapidophoria australasica

Smilex australis. Trichosanthes sp.

Sarsaparilla vine

Mative pepper

Native pepper

Lillies, Grass, Orchids, etc.

Native ginger Alpinia arctiflora Native ginger Alpinia coerulea Native ginger Alpinia modesta Native ginger Alpinia racemigera Cunjevoi Alocasia macrorrhizza Mistletce Amyema whitei Bulbophyllum lewisenses Rock crchid Dendrobium speciosum Rock orchid Dandrobium ruppianum Dendrobium fleckerii Flax lily

Dianellia caerrulea (form serrated leaf) Didymocarpus kinnearii Elatostema reticulatum

Gahnia sp. Helmholtzzia acorifolia Korthalsella papuana

Lomandra longifolia Peperomia sp. Pollia macrophylla

Romnalda grallata

Rubus moluccanus Rubus roseifolius

Taeniophyllum confertum Thelymitra sp.

Orchid

Rock violet

Kuranda

Mistletce

Rainforest spinach

Giant sedge grass

Spiny-headed mat rush

Ground orchid

Native raspberry

Ferns Adiantum cunninghamii Arthropteris submarginalis Asplenium australasicum Asplenium polyodon Asplanium simplicifrons Asplenium lewisense Belvisia mucronata

Blechnum articulatum Blechnum cartilagineum Blechnum patersonii Bolbitis talori

Colysis ampla

Cyathea baileyana Cyathea cooperi Cyathea rebeccae Cyathea robersiana Davallia pyxidata Dicranopteris linearis

Diplazium assimile Diplazium dilatatum Drynaria rigidula

Elaphoglossum sp. Grammitis wurunuran Maiden hair fern

Birds-nest fern

Rat's tail fern

Wig tree fern Scaly tree fern Rebecca's tree fern Slender tree fern Hare's foot fern Scrambling fern

Basket fern Tongue fern Histiopteris incisa

Humata repens

Lastreopsis grayi

Lastreopsis wurunuran

Lindsaea obtusa

Lycopodium cernuum

Lycopodium lockyeri Lygodium reticulatum Macroglena brassii

Marattia salicina Nephrolepis cordifolia

Oenotrichia tripinnata Ophioglossum pendulum Platycerium bifurcatum

Pteridablechum neglectum Pyrrosia longifolia

Pyrrosia rupestris

Batwing fern

Coral fern

Tassel fern

Potato fern

Ribbon fern

Elk horn

Felt fern

Felt fern

Fishbone fern

Schellolepis subauriculatum

Selenodesmium obscurum

Sticherus flabellatus

Teratophyllum brightiae

Vittaria elongata

Umbrella fern

Tape fern

Lichens From Austrobaileya Vol 2 No. 5

Badimia polillensis

Byssoloma subdiscordans (on leaves of Calamus sp.)

Lasiolma arachnoideum Mazosia phyllosema

Microtheliopsis uleana

Porina epiphylla var. epiphylla

Porina limbulata Porina rufula

Some more notes on the plants of Mt. Lewis courtesy of The Society for Growing Australian Plants, Cairns Branch.

Mt. Lewis contains many of the more common rainforest plants of the north and a large number of very rare ones too. One of the features of the plants of Mt. Lewis is their exceptional beauty, over and above the widely acknowledged beauty of our rainforest plants in general.

The reasons for this can be found in the geology and climatic history of the area. The volcanic activity resulting in the large areas of basalt rock in north Queensland geologically speaking is relatively recent. On the other hand the granites, including Mt. Lewis, are much older. Rainforest is older on granite than on basalt; therefore it contains a greater variety of species (many of which are ancient from an evolutionary point of view) than can be found in rainforest standing on basalt.

In addition, Mt. Lewis is a high peak, and rainforests on high peaks are of particular interest for two reasons: firstly, they contain different plants simply because of their altitude; and secondly, they are relict areas of evolutionary significance since the rainforest retreated to these high peaks during dry periods in Australia's climatic history and these refuges were isolated from each other for long periods. Therefore the high peaks are likely to contain different, and very rare plants.

Mt. Lewis is the most accessible of these granite high peak refuges. has not been too much rain a conventional car can drive to the end of the road with care. Other high peaks of equal interest include Mt. Bartle Frere, Mt. Spurgeon, Mt. Peter Bottle and Thornton Peak (these each require a long walk) and the McDowall Range on the CREB track (this requires a 4wd).

One of the striking features of many of the plants on Mt. Lewis is their spectacular red/bronze new growth - in particular Eleocarpus ferruginea, Aceratium ferrugineum, and Carnivonia sp.

The palms on Mt. Lewis are of particular interest. The Alexandra Palm on Mt. Lewis is similar to the common Archontophoenix alexandrae of north Queensland rainforests, but with a much larger fruit and distinct purple colouring to the crownshaft and undersides of the fronds. It is felt by many to be sufficiently different to be placed in a new species.

Orania appendiculata is common, as is Laccospadix austalasica, but the Laccospadix is unusual in that it grows very tall and spindly with a single trunk and does not sucker. A very unusual walking stick palm Linospadix sp. is found in the higher altitudes - it is often referred to as the "cabbage palm" because it suckers from the base forming a clump like a cabbage and sending up usually only one walking stick per clump.

Tree ferns abound. Cyathea rebeccae, C. robertsiana and C. cooperi are common. The unusual "wig tree fern", Cyathea baileyana can be found on Mt. Lewis, but only in the most shady areas in the higher altitudes. C. baileyana has a slender trunk with a curious wig-like clump at the top, at the base of the fronds. The "wig" is bright green when young, ageing to a reddish brown.

The family Proteaceae is very well represented on the mountain with about two dozen species to be found. Grevillea pinnatifida is particularly prominent in the lower altitudes: Placospermum coriaceum is common. Athertonia diversifolia and Macadamia heyana occur on the mountain. Carnivonia araliifolia can be found, but another unnamed Carnivonia sp. with brilliant red/bronze new growth is far more common, or at least more prominent! Sphalmium racemosum, a rare plant restricted to the high peaks, is present. Another member of the Proteaceae family is a pink flowered shrub, Triunia sp. which is found on Mt. Lewis in the higher altitudes and, as far as is known, nowhere else. An unnamed Austromuellera sp. (apparently restricted to Mt. Lewis) is found near the top. However, the real 'gem' of the mountain is the rare 'fern leafed' Stenocarpus sp. also found only in the higher altitudes — a tree with the most beautiful ferny foliage you could ever imagine!

Bunya Pines Araucaria bidwillii also occur naturally on the western slopes of Mt. Lewis, making a fascinating study in plant distribution since the only other natural occurrences are in the Bunya Mountains near Kingaroy, Qld and on Fraser Island, Qld.

Acema resa, the bark of which has an oak like red blaze grows higher up on the slopes.

On rocky outcrops the vine *Quintinia fawknerii* grows with the King Orchid, *endrobium speciosum. Alyxia oreophila*, similar to *Alyxia ruscifolia*, grows as an understory plant, the scent from its fragrant white flowers can fill the air. An interesting plant *Polyscias wilmottii* emits a mango-like scent from its freshly picked leaves. *Agapetes meiniana* is another high altitude vine with vivid pink, tubular bell-shaped flowers conspicuous often on the forest floor. Another scrambler, *Rhododendron lochae* also grows on the rocky outcrops. The pale mauve flowers of the Sun Orchid, *Thelymitra* sp. can add a touch of colour amongst the scrambler *Agapetes* sp. A species of Ziera will also occur with these generally also in flower. It is a small shrub with very aromatic foliage and small pinkish white flowers.

Syzygium erythrodoxa and Austromyrtus metrosideros can display a colourful red/pink new leaf.

In the moss covered creeks the rocks are 'decorated' with a beautiful delicate lace-like frond fern, *Oenotrichia tripinnata*. *Bleachnum articulatum* and *Pteridablechum sp.* are also plentiful, the bright pink/purple fronds commanding attention. Many other ferns of great beauty are also evident. *Prumnopitys ladei* (formerly *Podocarpus ladei*) has an unusual foliage somewhat fern-like appearance.

Ostrearia australiana belongs to the Hamamelidaceae family which has a worldwide distribution, there being some 100 species in 25 genera. In Australia the family is represented by 2 species in separate genera. Both are endemic to north Queensland rainforests.

Many of the exotic species are cultivated in Australian gardens, mainly *Hamamelis* virginiana which is the source of "Witch Hazel" a solution which is used on cuts and bruises etc.

Hamamelis mollis is also cultivated as is H. japonica, Corylopsis spicata, C. sinensis, Disanthus cercidifolius, Fothergilla monitcolor, F. parvifolia, Liquidambar stryraciflua, L. formosana, L, orientalis and Parrotis persica.

Ostrearia australiana

This is a small to medium sized tree that is more interesting than attractive. The flowers are similar to *Neostrearia fleckeri* but much smaller. The capsules are

retained on the tree for some period after the seeds are shed and the presence of the capsules on the ground is usually the first indication that the species is present. This species is common along the Mt. Lewis Road as well as in many other areas. It is also illustrated in <u>Flowering Plants in Australia</u> ed. by B.D. Morley and H.R. Toelken. I once picked up seed capsules that looked like this species on the Blue Arrow Walk in Cairns but could not find the tree.

Lenbrassia australiana var. australiana

This interesting and attractive species of the family Gesneriaceae grows along the Mt. Lewis Road as a shrub. The family is mainly tropical with some 2000 species in 120 genera. Many species of the family are commonly cultivated throughout the world, the main ones being: Achimenes longiflora, Columnea gloriosa, C. schiedeana, Episcia cupreata, Kohleria bogotensis, Saintpaulta ionantha "African Violet", Sinningia speciosa "Gloxinia" all of which are exotic. The Australian species number six or seven and belong to six genera and occur from somewhere around Iron Range Q. down the east coast to southern Victoria and also on Lord Howe Island.

Boea hygroscopica "Rock Violet"

This species is well known to native plant enthusiasts and is featured in The Horticultural Guide. It is a variable species and up to three species may be involved. The flowers of some are pink while others are violet as well as different leaf shapes and texture. This species is remarkably similar to *B. hygrometric* of China.

The area is State Forest and visitors require a permit to traverse, which may be obtained from the Forestry Dept. Atherton.

The visitor will find two CSIRO publications useful - The Vegetation of the Humid Subtropical Region of North Queensland by J.G. Tracy, and A revised card key to rainforest trees of north Queensland by B.P.M. Hyland - as well as Rainforest Proteaceae of North Queensland published by the Tablelands Branch of SGAP.

Archer Creek Visit Sybil J. Kimmins

A party of 20 people took advantage of the long January weekend to escape from the costal humidity by camping at the junction of Archer Creek and Millstream River. Club members who took the route through Malanda and McHugh Road were rewarded with vistas of green farmland and undulating hills rising from treefern encrusted creeks. At panoramic McHughs Lookout, the breeze held a touch of winter. Some Oreocallis wickhamii (tree waratah) were in full bloom.

From Archer Creek, a trip was made to the Mt. Garnet swamp where bird watchers spent happy hours observing water birds including black swans, osprey, grey teal and ducks. In the flowering gums, leaden flycatchers, weebills, cuckoo shrikes, pale headed rosellas and red wing parrots were seen. From the road, a baza hawk and crested pigeons came into view.

At the camp site koels, channel bill cuckoos and dollarbirds filled the air with sound. For the weekend, 58 species of birds were recorded.

The Millstream Falls were visited. Blue dianella, Everlasting daisies and other small flowers were blooming in the grass.

On the way home, a long drive through rainforest was taken to the 293m deep Tully Gorge. The pleasant 1 km walk down the mountain-side to the top of the falls was undertaken. The highlight of this walk was seeing a large rock beside a creek covered with rock violets *Boea hygroscopia*, some of which were in bloom. This delicate plant usually dies if taken away from its natural habitat.

Twelve members of the NQNC spent a busy weekend at the State Forest Park, Goldsborough, on November 11-12. The forest echoed with the calls of Buff Breasted Paradise Kingfishers not long back from their northern sojourn, and the harsh cries of Victoria Riflebirds. These were later seen displaying on bare branches and tall stumps. A Yellow Spotted Honeyeater was observed building a nest close to the campsite.

As darkness fell an insect trap was set up close to the forest edge and it was soon covered with a myriad of beetles, weevils, mantids and moths. One spectacular white moth appeared to be embossed with gold powder in a raised pattern. Two species of Mayflies, the body length of one being 2cm were also observed.

A spotlight walk through the rainforest disclosed spiders and beetles often missed in daylight hours. Bright eyes high in a tree revealed a rainforest frog and in the creek, shrimps betrayed by their orange-red eye shine quickly scuttled under leaves. No marsupials were observed.

On Sunday 11 more members joined the group and two walks were enjoyed. In the open grassy area, folk wearing blue garments were followed by the Blue Triangle Butterflies Graphium sarpedon and several times the creatures alighted on perspiring arms to sip the moisture.

On the walk to Kearney's Falls, Black Bean trees Castanospermum australe were full of blossom and many other rainforest trees were fruiting, providing a feast for the various fruit-eating pigeons. Large fig trees were thick with fruit on the trunks and even on high branches where fig parrots lunched. Even though the forest floor was dry there was a good variety of ferns and fungi.

50 species of birds were listed for the weekend, including Pale Yellow Robin, Yellow Breasted Boatbill, Pied Monarch and King Parrots. The monotonous call of a Brush Cuckoo Could be heard nearly all night and a wonderful dawn chorus included Red Necked Rail, Grey Whistler, Little Shrike Thrush, Drongo, Black Butcher Bird and in the distance Chowchillas

Sybil J. Kimmins Edge Hill

As many of the club were away camping, only ten people attended the outing to the Edge Hill Red Arrow Walk within the City of Cairns on May 6. On account of the forest still being damp from a wet night, it was decided to first visit the Mangrove Boardwalk near the Cairns Airport. The boardwalk consists of a raised footpath about 1.5 meters wide and about 2 meters above the ground, the total length of path is about 800 meters wandering through mangrove forest. The highlight of this walk was the sighting of two Little Kingfishers low down among the mangroves. A Sacred Kingfisher was also seen; honeyeaters and friarbirds were heard while from the towers at the ends of the boardwalks, a Brahminy Kite, herons and white ibis were seen.

At least five species of mangrove trees were observed, including yellow mangrove, orange mangrove and slender-fruited mangrove.

Pistol prawns filled the air with sharp sounds and colourful little crabs popped in and out of their burrows.

After morning tea back at Edge Hill, the hill was climbed and glorious views of Cairns the airport and the ocean were enjoyed.

The most interesting bird sighting was of an Orange-footed Scrub Fowl. rainforest, ferns were abundant and varied. Slender palms Ptychosperma elegans, reached high for sunlight and many rainforest cycads were seen.

At the Centenary Lakes, a pair of Brahminy Kites were seen.

Plant List of the Red Arrow Walk, Cairns.

his track leads up the gully beside the Botanical Gardens in Cairns on to the Mt. Whitfield lange. On top of the first main ridge the Red Arrow track veers to the right with the Blue rrow walk continuing up on to Mt. Whitfield itself. The numbers in the list refer to numbers placed on trees. NQNC is indebted to The Hugo Flecker Botanical Gardens, Cairns for the supply of this list.

0. *	Species	Common name	No		Promise	
	Ganophyllum falcatum	Scaly Ash, Honeywood		. * (w)	Species Racosperma polystachyum	Common name
2 (d)	Normanbya normanbyl	Black Palm			Xanthophyllum octandrum	Wattle Yellow Boxwood
3 (p)	Glochidion philippicum	Buttonwood		a(q)		
4 (1)	Terminalia sericocarpa	Sovereignwood, Damson			Flagellaria indica Persoonia falcata	Supply Jack
	Melaleuca leucadendron	Tea Tree		(b)		Geebung
6 (d)	Archontophoenix alexandrae	Alexandra Palm		(p)	Alstonia muellerana Macaranga subdentata	Hard Milkwood, Milky Bean
	Chionanthus ramiflorus	Native Olive			The second secon	Needlebark
8 (f)	Spathodea campanulata	Sth. African Tulip			Commersonia bartramia Trichospermum pleiostigma	Brown Kurrajong
9 (s)	Cryptocarya hypospodia	White Walut, Ntn Laurel		(W)	A CONTRACTOR OF THE PARTY OF TH	The state of the s
0 (a)	Mangifera indica	Mango			Arytera divaricata	Red Siris
1 (u)	Enterolobium saman	Rain Tree				Rose Tamarind
2 (y)	Ficus congesta	Red-leafed Fig			Toechima daemeliana	Pink Tamarind
3 (p)	Aleurites moluccana			(W)	Racosperma flavescens	Red Wattle
		Candle Nut			Eucalyptus drepanophylla	Ironbark
	Alphitonia petriel	Pink Ash			Eucalyptus polycarpa	Long-fruited Bloodwood
	Toechina erythrocarpum	Pink Tamarind			Eucalyptus leptophyleba	Molly Box
6 (s)	Endiandra hypotephra	Northern Rose Walnut		(i)	Cassia fistula	Cascara Tree
	Syzygium cormiflorum	Bumpy Satinash		(g)	Bombax celba	Kapok Tree
(m) E	Davidsonia pruriens	Davidsonian Plum			Platycerium hillii	Northern Elkhorn
	Euphoria longana	Longan		(t)	Planchonia careya	Cocky Apple
0 (b)	Alstonia scholaris	Milky Pine		(h)	Canarium australianum	Scrub Turpentine
Da(e)	Rhaphidophora pinnata	Native Monstera		(p)	Mallotus philippensis	Kama la
	Ixora klanderana	no common name		(v)	Melia azedarach var. aust	ralasica White Cedar
2 (p)	Cleistanthus apodus	Barron River 'Gillowari'		(M)	Albizia procera	Forest Siris
3 (d)	Calamus morti	Wait-a-while	64	(W)	Racosperma orarium	Costal Wattle
(v)	Dysoxylum sp. aff D.klander		65	(a)	Pleiogynium timoriense	Tulip or Burdekin Plum
	Diploglottis diphyllostegia	Native Tamarind	66	(ae)	Drynaria quercifolia	no common name
6 (0)	Elaeocarpus angustifollus	Silver Quandong	67	(ak)	Mimusops elengi	Red Coondoo
7 (V)	Dysoxylum pettigrewianum	Spur Mahogany	68	(1)	Cassine melanocarpa	no common name ,
(z)	Myristica insipida	Nutmeg	69	(n)	Diospyros hebecarpa	no common name
(8)	Endiandra sankeyana	Sankey's Walnut	70	(aa)	Lophostemon suaveolens	Swamp Mahogany
(b)	Wrightia laevis ssp. millga	r White Cheeswood, Millgar	71	(aa)	Rhodomyrtus macrocarpus	Finger Cherry
(p)	Bridelia penangiana	Grey Birch	72	(c)	Polyscias elegans	Celery-wood
2 (x)	Wilkiea macrophylla	Beach Sassafras	73	(y)	Ficus variegata	Fig
3 (k)	Calophyllum sil	Blush Touriga	74	(ah)	Timonius timon	Timonius
(ak)	Palaquium galactoxylum	Cairns Pencil Cedar	75	(ac)	Pittosporum ferrugineum	no common name
(aa)	Acmenosperma claviflorum	Trumpet Satinash	76	(aa)	Eucalyptus tessellaris	Moreton Bay Ash
(e)	Pothos longipes	no common name	77	(d)	Livistona muelleri	Cabbage Tree Palm
(d)	Ptychosperma elegans	Solitare Palm	78	(W)	Racosperma mangium	Brown Salwood
(r)	Gomphandra australiana	Buff Beach	79	(W)	Racosperma crassicarpum	Brown Salwood
(ai)	Acronychia acronychioides	Yellow Aspen	80	(c)	Polyscias australiana	Ivory Basswood
(W)	Racosperma aulacocarpum	Black Wattle	80a	(ae)	Pyrrosia longifolia	no common name
(an)	Lepidozamia hopei	Zamia Palm	81	(a)	Semecarpus australiensis	Cedar Plum, Tar Tree
(a)	Euroschinus falcatus	Maiden's Blush				
(s)	Cryptocarya mackinnoniana	Mackinnon's Walnut				
(h) es	Colomus conveteides	Fishtsil Laures Wiss				

Family Legend

Ra(d) Calamus caryotoides

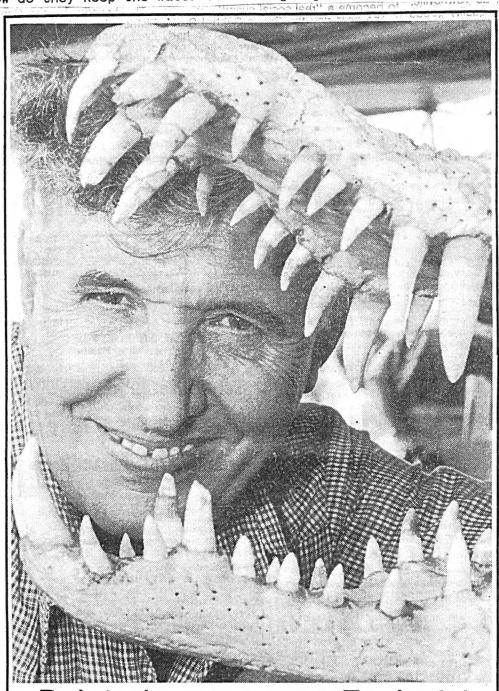
(a)	Anacardiaceae	(b)	Apocynaceae	(c)	Araliaceae	(d)	Arecaceae	(e)	Araceae	(f)	Bignoniaceae
(g)	Bombacaceae	(h)	Burseraceae	(i)	Caesalpinaceae	(5)	Celastraceae	(k)	Clusiaceae	(1)	Combretaceae
(m)	Davidsoniaceae	(n)	Ebenaceae	(0)	Elaeocarpaceae	(p)	Euphorbiaceae	(q)	Flagellariaceae	(r)	Icacinaceae
(s)	Lauraceae .	(t)	Lecythidaceae	(u)	Leguminoseae	(v)	Meliaceae	(W)	Mimosaceae	(x)	Monimiaceae
(y)	Moraceae	(z)	Myristicaceae	(aa)	Myrtaceae	(ab)	Oleaceae	(ac)	Pittosporaceae	(ad)	Polygalaceae
(ae)	Polypodiaceae	(af)	Proteaceae	(ag)	Rhamnaceae	(ah)	Rubiaceae	(ai)	Rutaceae	(aj)	Sapindaceae
1-1-1	C	1-71	04	1	*****		420.000				

Fishtail Lawyer Vine

Along the Mangrove Boardwalk described above one has the chance to examine one o natures oddities in the form of ants nests in the mud below hide tide level. Th nests have large entrances about 2 cm in diameter with mounds of material built u around the entrance to a height of about 4 cm. Fresh material can be seen around th entrance during low tide. The nests can be found on the creek banks away from an wave action but certainly subject to daily inundation and are easily seen from th boardwalk.

I have not identified the ants that live in these nests but they are black medium siz about 4-6 mm long and not aggressive and can be readily seen travelling in file abou the nests at low tide.

Question is, how do they keep the water out during high tide?



Pointed message at Envirofair

President of the North

TED Bill heard it straight Queensland Naturalist Club, tivities. The skull was one from the croc's mouth — Mr Bill showed no fear of the many items on disthe Envirofair on Sunday when asked to pose for a was a great success. The photograph with one of his play at the Esplanade. Phoexhibits at yesterday's fes-

to: Marc Vignes

The Birds of the Hugo Flecker Botanic Gardens, Centenery Lakes and Whitfield Walks

Cairns

Australasian Grebe Australian Pelican

Darter

Little Pied Cormorant Little Black Cormorant Pacific (White-Necked) Heron

White-Faced Heron

Pied Heron Great Egret Little Egret

Intermediate (Plumed) Egret Eastern Reef Egret (Reef Heron) Striated (Mangrove) Heron Rufous (Nankeen) Night Heron

Black Bittern

Black-Necked Stork (Jabiru)

Sacred Ibis

Straw-Necked Ibis Royal Spoonbill (Pied) Magpie Goose Wandering Whistling Duck

Black Duck Grey Teal

Hardhead (White-Eyed Duck)

Green Pygmy-Goose

Osprey

Pacific Baza (Crested Hawk)

Black Kite Brahminy Kite Whistling Kite Brown Goshawk

Grey (White) Goshawk White-Bellied Sea-Eagle

Peregrine Falcon

Australian Hobby (Little Falcon) Noisy Pitta

Orange-Footed Scrubfowl Australian Brush-Turkey

Buff-Banded Rail

Red-Necked Crake (Rail)

White-Browed Crake

Bush-Hen

Comb-Crested Jacana (Lotusbird) Bush Thick-knee (Stone Curlew)

Masked Lapwing (Plover) Eastern Golden Plover Black-Winged (Pied) Stilt

Eastern Curlew

Whimbrel

Grey-Tailed Tattler Common Sandpiper

Greenshank Terek Sandpiper

(Japanese) Latham's Snipe Sharp-Tailed Sandpiper

Red-Necked Stint

Silver Gull

(Whiskered) Marsh Tern Superb Fruit-Dove

Rose-Crowned Fruit-Dove Wompoo Fruit-Dove (Pigeon)

Torresian Imperial-Pigeon

Topknot Pigeon Spotted Turtle-Dove

Brown Cuckoo-Dove (pigeon)

Peaceful Dove

Bar-Shouldered Dove Emerald Ground-Dove (Green-Winged Pigeon) Sulpher-Crested Cockatoo

Rainbow Lorikeet

Scaly-Breasted Lorikeet

Double-eyed Fig Parrot Brush Cuchoo Fan-Tailed Cuckoo Shining Bronze-Cuckoo (Golden Bronze)

Little Bronze Cuckoo Goulds Bronze Cuckoo (Indian) Common Koel Channel-Billed Cuckoo

Pheasant Coucal

Rufous Owl

Papuan Frogmouth Large-Tailed Nightjar White-Rumped Swiftlet

White-Throated Needletail Fork-Tailed Swift

Azure Kingfisher Little Kingfisher Laughing Kookaburra Forest Kingfisher Sacred KingFisher

Buff-Br Paradise Kingfisher

Rainbow Bee-Eater

Dollarbird Welcome Swallow Tree Martin

Black-Faced Cuckoo-Shrike

Yellow-Eyed (Barred) Cuckoo-Shrike White-bellied (Little) Cuckoo-Shike

Cicadabird Varied Triller Pale-Yellow Robin Grey Whistler

Little (rufous) Shrike-Thrush Yellow-Breasted Boatbill

Black-Faced Monarch Spectacled Monarch White-Eared Monarch

Pied Monarch Leaden Flycatcher Satin Flycatcher Shining Flycatcher Rufous Faintail

Grey Fantail Willie Wagtail Chowchilla Eastern Whipbird

Tawny Grassbird

Golden-Headed Cisticola Variegated Wren (Lovely Wren)

Red-Backed Fairy Wren Large-Billed Scrubwren Brown Gerygone (Warbler) Helmeted Friarbird Noisy Friarbird Macleay's Honeyeater Yellow-Spotted Honyeater Graceful Honeyeater Yellow Honeyeater White-ThroatedHoneyeater Brown Honeyeater Brown-Backed Honeyeater Dusky Honeyeater Yellow Billed Sunbird Mistletoebird Striated Pardalote

Silvereye House Sparrow Red-Browed Firetail Chestnut-Breast Mannikin Nutmeg Mannikin Pacific (Spice Finch)

Metallic (Shining) Starling

Common Myna Yellow Oriole Olive-Backed Oriole

Figbird

Spangled Drongo Spotted Catbird

Australian Magpie Lark White-Breasted was Swallow

Black Butcherbird Pied Currawong

Compiled by members of The North Queensland Naturalists Club.

Reports of birds not mentioned would be appreciated.

Phone (070) 53 1183 or (070) 51 3964

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